Project Fleur-de-lis™:

An Intermediate and Long-Term School-based Mental Health Service Model for Youth Exposed to Disasters

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Hurricane Katrina, which ravaged the Gulf Coast on August 29, 2005, was amongst the most devastating natural disasters in our country's history. The traumatic experiences of youth and families who endured the storm, the flooding that resulted from the break of the levees, the evacuation, and the aftermath of Katrina were unprecedented. The aftermath of the storm also exposed longstanding problems that continue to afflict many of our nation's cities and states, especially their poorest communities: lack of jobs, proper housing, and quality education. In the days following Hurricane Katrina, it became clear that jobs, homes, and schools, were three inter-related factors that would dictate the immediate recovery of New Orleans. These three factors make up the "trinity" that has driven the recovery of New Orleans over the past four years.

For those of us providing the long-term child and adolescent-oriented mental health care post-Katrina, it has been the New Orleans area schools which have provided the best opportunity to introduce not only examples of treatment best-practice in the field of child and adolescent trauma, but new and innovative ways to link youth and families with mental health services. Project Fleur-de-lis was designed only days after Hurricane Katrina to address the intermediate and long-term mental health issues of students as they re-entered school and endured a post-Katrina landscape that evoked for many mixed feelings of grief, hope and fear.

Project Fleur-de-lis

Project Fleur-de-lis is a collaborative program linking local social service agencies, schools, and nationally recognized researchers, program developers, and clinicians in a coordinated effort to provide state-of-the-art mental health services within 58 New Orleans-area schools. Project Fleur-de-lis entered into the National Child Traumatic Stress Network in October 2008 as a Community Treatment and Services (CTS) Center within the National Child Traumatic Stress Network (NCTSN). A grant award of $1.4 million dollars by the Substance Abuse and Mental Health Services Administration (Grant #1U79SM058776-01) will help maintain Project Fleur-de-lis as a NCTSN member until 2012.

The goals of Project Fleur-de-lis are to 1) implement school intervention services to students exposed to trauma; 2) establish a mechanism for identification of and services to students with all mental health and psycho-educational needs beyond what can be addressed or identified in the school setting; 3) partner with national leaders to provide increased access to mental health care and effective trauma treatments for students in schools and the community; and 4) provide evidence that treatments for traumatized youth can be effectively delivered in a three-tiered stepped approach model of care utilizing school-based interventions, classroom-based interventions and specialized community-based interventions in communities significantly impacted by natural or man-made disasters.

Project History

For every school reopening along the Gulf Coast following Hurricane Katrina, significant logistical and clinical factors impacted the type and structure of school-based mental health interventions. These factors included the time at which an intervention could be introduced into a recovering school, the vast number of youth that needed to be served, and the varying severity of post-trauma symptoms of youth identified as being in need of more intensive care outside the school setting. Project Fleur-de-lis was designed around the invaluable knowledge possessed by school teachers, counselors, and administrators of schools rebuilding after the hurricane. This knowledge, combined with evidence-based practices, innovative pathways of care, and integrated electronic records has created an intermediate and long-term school-based mental health response to Hurricane Katrina that has addressed not only trauma related issues in youth, but the myriad of other psychological and educational problems that occur in the general child and adolescent population (e.g., anxiety, depression, learning disorders).

For every school reopening along the Gulf Coast in the weeks and months after Hurricanes Katrina and Rita, a hierarchy of needs had to be satisfied before mental health services could be introduced to the students, faculty, and administration. Focus groups with principals and counselors from 42 area schools in the spring of 2006 revealed that many could not even consider allowing comprehensive mental health programming in their schools because they were still overwhelmed with overcrowded classrooms, lack of teachers, damaged physical plants, and meeting the needs of individualized education plans of new students whose educational records had been destroyed by the storms. Project Fleur-de-lis began its first school-based interventions in March of 2006 within a Catholic school in Orleans Parish and by the start of the 2006 – 2007 academic year, 45 other schools had arrived at a time in their post-storm recovery that allowed the introduction of this school-based mental health program. Project Fleur-de-lis has grown to include 58 participating schools which include 25,000 students eligible for free in-school trauma-focused treatment. Participating schools are made up of Catholic, public, public charter, and private schools that are located across seven civil parishes in the Greater New Orleans area.

Project Fleur-de-lis' Pathways of Care

The Project Fleur-de-lis stepped model of care relies on two intervention pathways. The first pathway is comprised of the three core trauma-informed practices termed the Stepped Trauma Pathway. The second pathway is the classroom to community referral system, which is called Classroom-Community Consultation (C^3). Both pathways utilize a stepped approach to intervention where students receive a higher level of care if necessary, but the goal is to be able to address signs and symptoms early so a higher level of care/intervention is not necessary. Each pathway is described in more detail below.

Innovative Design: Stepped Trauma Pathways

The goal of the Stepped Trauma Pathway (Figure 1) is to provide appropriate mental health interventions to all students that are appropriate for each individual's level of need based on their trauma history and/or presenting symptoms. The Stepped Trauma Pathway is a combination of trauma informed treatments that are designed to provide care to varying numbers of children (classroom, group, individual) for varying degrees of need (mild, moderate, severe). Project

Fleur-de-lis has worked collaboratively over the past three and a half years with the authors of these interventions to promote training and implementation of these programs in southeast Louisiana and the gulf-coast region.

Tier One: Classroom-Camp-Community-Culture Based Intervention.
Note: This intervention has been recently replaced by Psychological First Aid (Brymer, Jacobs, Layne, et al., 2006).

The problem of serving large numbers of youth in the schools was answered with the help of Save the Children which instituted a psycho-social program in the United States Gulf Coast to provide support to young youth affected by Hurricane Katrina and its aftermath. Having been extensively field tested, Classroom-Camp-Community-Culture Based Intervention (CBI) (Macy, Macy, Gross, and Brighton, 2006), was attractive as a psycho-social intervention post-Katrina because of its use all over the world in addressing various types of traumatic exposures including ongoing armed conflict, post-conflict environments, refugee camps, and mass casualties as a result of natural disasters (tsunami, earthquakes, floods). This model of intervention is based on the premise that immediate, short-term interventions for trauma-exposed youth are beneficial in reducing the harmful effects of traumatizing experiences.

Within Project Fleur-de-lis, CBI was used to blanket an entire school so that every student had the opportunity to benefit from the stabilization program, and be formally (using standardized instruments) or informally screened for psychological distress throughout the CBI programming. Making up the first-tier of intervention within the Stepped Trauma Pathway, CBI provided the best opportunity to supply the most appropriate mental health intervention, at the most appropriate time post-disaster, to the most youth. As the sole sponsor of CBI in the Gulf Coast region, Save the Children trained 1,113 implementers and intervened with approximately 11,500 youth in the Gulf Coast, many of whom were enrolled in schools affiliated with Project Fleur-de-lis (Save the Children, 2007).

Tier Two: Cognitive Behavioral Intervention for Trauma in Schools (CBITS)

The Stepped Trauma Pathway model was designed to then move students identified throughout CBI into more intensive intervention. This more intensive and "intimate" trauma focused intervention was provided by CBITS, (Jaycox, 2004). CBITS is the most thoroughly tested trauma-focused school intervention program at present, having undergone two controlled trials (Kataoka et al, 2003; Stein et al, 2003). CBITS is listed within SAMHSA's National Registry of Evidenced-based Programs and Practices (NREPP). It includes 10 group sessions and 1-3 individual sessions designed specifically for use in schools where youth have been exposed to traumatic events.

The application of CBITS to post-Hurricane trauma was a natural choice given its proven efficacy with diverse populations and the relative ease of its dissemination and implementation. Also considered was its usefulness in addressing exposure to community violence, which for many youth in the New Orleans area was a daily occurrence prior to, and after, the storm. Because of the timing of the training for CBITS in the New Orleans area, formal referrals from tier one (CBI) to tier two (CBITS) were not possible, but future implementation of the Stepped Trauma Pathway post-evacuation in New Orleans would include this type of triage. There have

been many successful cases within Project Fleur-de-lis of youth being referred "up" from the Tier Two CBITS intervention to Tier Three, Trauma Focused – Cognitive Behavioral Therapy (TF-CBT) when CBITS was not completely successful in relieving trauma related symptoms.

Tier Three: Trauma Focused – Cognitive Behavioral Therapy(TF-CBT)

Finally, the issue of serving the most severe traumas in youth was answered with the help of Trauma Focused – Cognitive Behavioral Therapy (TF-CBT) (Cohen, Mannarino & Deblinger, 2006). TF-CBT, a SAMHSA model program, is a psychotherapeutic intervention designed to assist youth, adolescents, and their caregivers overcome the negative effects of traumatic life events such as child sexual or physical abuse; traumatic loss of a loved one; domestic, school or community violence; or exposure to disasters or war. TF-CBT is designed as a 10-session treatment program that mixes individual student sessions with parent-only and parent-student sessions.

TF-CBT is a components-based intervention model that incorporates trauma sensitive treatments with cognitive behavioral, family, and humanistic principals and methods for children ages 3 – 18. During the 2006 – 2007 school year, several youth in Project Fleur-de-lis were identified as having direct exposure to the storm and/or the traumatic experience of being evacuated to the Super Dome or the Morial Convention Center. Beyond helping with traumas of youth who were directly exposed to the storm, over forty youth from participating schools were referred for TF-CBT for other types of traumas (domestic violence, sexual abuse, accidents) during the same school year, making this intervention invaluable for our community-based clinicians.
Classroom-Community Consultation (C^3)

The goal of the C^3 pathway of care is to provide an efficient and barrier-free triage system for students in need of intensive interventions and services that cannot be provided within their school setting (See Figure 2). This collaborative process also allows for the provision of guidance to school counselors in their day-to-day interventions with students so as to catch school related problems early and often, and as a result avoid referrals for more intensive community based interventions. C^3 also functions as a clearinghouse of information and resources for those schools and communities who have been stripped of their social service assets. This collaborative referral process has also benefited the school-based counselors by increasing their knowledge of trauma related issues in youth, and strengthening relationships among participating members.

The strength of C^3 lies in its utilization of school mental health resources that were in place prior to Hurricane Katrina. Each week throughout the school year counselors submit names of students they believe are in need of community based services such as psychiatry, psychotherapy and psycho-educational testing. The school based counselor is required to gather information from parent, teacher and child prior to presenting their case (which includes subjective data, and data derived from standardized screening instruments). This meeting is often made up of over thirty members who include the school based counselors, Mercy Family Center psychologists, social workers and psychiatrists, and other invited community based mental health professionals. In a collaborative process, members in attendance offer questions and feedback with the goal of determining if a student is need of more intensive services. An electronic records system is used to collect and organize C^3 referrals and daily counselor encounters with students. If a student is

determined to be in need of services, a referral form is created from the electronic records system that assists parents in understanding their child current symptoms and how they will be linked with psychological or psychiatric care at Mercy Family Center or community mental health partner.

Impact

To date, Project Fleur-de-lis has provided intervention recommendations for 1,360 students who have been triaged during weekly C^3 meetings since September 1, 2006. These C^3 meetings have provided professional and emotional support to over 80 school based counselors in the past three and a half years. This project's Stepped Trauma Pathway has provided over 5,000 students with trauma informed interventions appropriate to their level of need since its introduction into New Orleans area schools in the spring of 2006. Douglas Walker, the architect and Project Director of Project Fleur-de-lis became a CBITS "certified" trainer in the spring of 2008, and along with his staff have trained 192 school-based counselors in CBITS over the past year and a half. See Figure 3 for a summary of Project Fleur-de-lis' service delivery since September 2006.

Lessons Learned

The first lesson learned was the unexpected demand for psycho-educational testing for students identified within Project Fleur-de-lis during the 2006 – 2007 school year. Of the 268 children staffed at the C^3 meetings, 116 (43%) were recommended for psycho-educational testing to rule out the existence of Attention Deficit Hyperactivity Disorder, learning disorders, or psychological issues (such as trauma) that were interfering with the student's ability to perform in school. The reason for the amount of these types of referrals might someday be explained by way of a complex algorithm, but some initial theories are as follows: First, Project Fleur-de-lis and Mercy Family Center were seeing the "typical" number of new incidences expected with the prevalence of Attention Deficit Hyperactivity Disorder (estimated at 3% to 7%) and learning disorders (2% to 10%), according to the *Diagnostic and Statistical Manual of Mental disorders* (*DSM*; American Psychiatric Association, 2000). Second, the students being recommended for psycho-educational testing had pre-existing conditions prior to the storm, but were not identified or recognized by their school as having significant deficits in learning and/or attention (15% of students referred for assessments had previously failed a grade but had not been tested to determine the cause of the learning problems). The third theory, which opens a potentially volatile discussion, is that many of the students referred for psycho-educational testing were being underserved by their former school and that they were significantly delayed academically when they entered into their new post-Katrina school and curriculum. These percentages have been persistent throughout the 2007 – 2008 and the 2008 – 2009 academic years.

The second lesson came by way of the unexpected use of our weekly C^3 meetings as a social support network where all participants could express their fear, doubt, and hope regarding the future of their schools and communities. It was overlooked by those of us employed within outpatient mental health treatment centers that the school counselors were often isolated in their schools, not having other mental health professionals in the next office to trade peer consultations or rely on for emotional support. By way of its own group process our weekly C^3 meetings have become "care for the caregiver" reconstituting each professional's fortitude and

making it possible for them to go back to "the trenches" where they continue to exert their best effort in the face of overwhelming need in our community.

Project Fleur-de-lis Research

Through collaborations with various centers within the National Child Traumatic Stress Network, Project Fleur-de-lis has been able to examine its system design and impact upon children suffering from trauma related symptoms. Below are brief summaries of the studies findings:

Cohen, J.A., Jaycox, L.H., Mannarino, A.P., Walker, D.W., Langley, A. K. & DuClos, J. (2009). Treating Traumatized Children after Hurricane Katrina: Project Fleur-de Lis™. *Clinical Child and Family Psychology Review,* 12(1), 55-64.

Results of this research study supported the vision that Project Fleur-de-lis could be a prototype for providing stepped care mental health screening and treatment for large numbers of significantly affected children after a community-wide disaster, although empirical data is still needed to back up its components. This stepped care approach makes inherent sense in post-disaster communities that are significantly lacking in the ability to provide adequate intermediate and long-term mental health care because it creates timely access to appropriate levels of mental health care, with a relatively small amount of professional resources. It is a comprehensive approach to identifying, triaging, and providing needed care to children, regardless of the reasons for their mental health needs, and attentive to finding the appropriate level of care for each. Our work conducted within the research project demonstrated a clear need for service among students exposed to this disaster, and attention to the varying mental health needs, moving beyond the singular focus on disaster-related symptoms, will be important in future disasters. This research project shed some light on how interventions can work post-disaster, but we already know a good deal about how to help children who face trauma, and must find new ways to toll out such programs in the weeks, months, and years to affected communities. This includes finding ways to fund such efforts so that sustained and effective programs can be implemented. (Full journal article is attached to this document).

Jaycox, L.H., Cohen, J.A., Mannarino, A.P., Walker, D.W., Langley, A. K., Gegenheimer, K. L., Scott, M., & Schonlau, M. Children's Mental Health Care Following Hurricane Katrina: A Field Trial of Trauma -Focused Psychotherapies. *Journal of Traumatic Stress.* (In Press).

This field trial indicated the ongoing need for intervention in a sample of school children who were not seeking mental health treatment more than a year following the hurricanes of 2005 in New Orleans. Not only were students experiencing symptoms related to the disaster, but many had experienced more devastating traumas and deaths prior to August 2005, and had diagnoses other than PTSD when evaluated. Future responses to natural disasters should include not only child-focused, long-term and traditional mental health services, but should take an even broader vision by taking into account previous trauma and pre-existing mental health disorders. When interventions were offered to comparable groups, access to those interventions turned out to be extremely important. The differences in access between the otherwise similar treatments, offered free of charge, shows that treatment must be available in convenient locations and at convenient

times. While schools' mission is to educate, schools may offer many children's only window of opportunity to recover from the negative effects of trauma on learning.

Conclusion

Project Fleur-de-lis grew out of the destruction and despair in the months following Hurricane Katrina to become the largest school-based mental health program in the New Orleans area (Princeton University – Woodrow Wilson School of Public and International Affairs, 2007). Lessons learned from the Project could someday assist New Orleans and other cities across the United States that experience similar disasters by informing public policy in disaster preparedness and immediate/long-term mental health responses for youth exposed to similar disasters. We expect Project Fleur-de-lis to grow beyond our current 58 schools (Figure 4) as administrators, teachers and parents find the value in combining the knowledge and expertise of school-based counselors with the knowledge and expertise of community-based providers in a coordinated effort to provide early and rapid identification and intervention of psychological and psycho-educational problems in New Orleans area students. The creation of Project Fleur-delis has been a daunting task when taking into account the adverse environment in which it was created. But in the years to come we hope to continue expanding Project Fleur-de-lis in order to assist youth and families in the Greater New Orleans area in their long-term recovery from Hurricane Katrina and provide consultation to communities across the United States who may benefit from this innovative system of intermediate and post-disaster care.

Recommendations

1. Provide Federal funding to support intermediate and long-term mental health services. Current FEMA and SAMHSA funding for crisis services a) prohibit mental health services from being offered and b) require that only disaster-specific services be provided (Stafford Act restrictions). As Project Fleur-de-lis has documented, many children exposed to disasters have previous trauma exposure and significant mental health problems that require mental health treatment. While short-term disaster-related services might help minimally impacted children, they do little for the most severely impacted children, who continue to have significant problems in the absence of mental health interventions months and years after the disaster has occurred.
2. Initiate immediately a coordinated nation-wide training program for mental health professionals (community and school-based) in Psychological First Aid, and evidence-based NREPP approved cognitive behavioral interventions such as CBITS and TF-CBT. A coordinated training program would allow communities to receive training in trauma-informed interventions before disaster strikes. Communities would also gain the knowledge to address more traditional and persistent traumas in their communities (e.g., community violence, physical and sexual abuse, neglect). Mental health professionals trained in these interventions could be placed on a national registry so as to create a coordinated tiered approach to community trauma intervention that could be formulated quickly post-disaster.

3. Build upon proven stepped models of post-disaster mental health care like Project Fleur-de-lis to address signs and symptoms early so more intensive and costly levels of care/intervention may not necessary. Stepped levels of care by way of school-based trauma interventions and coordinated triage for treatment outside the school setting addresses trauma related to the disaster, pre-existing trauma, pre-existing mental and learning disorders. Enhanced school-based

interventions and systems of care also supplement the loss of mental health care in the community, and allow for easy access to services within the school setting.

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Stein, B. D., Jaycox, L. H., Kataoka, S. H., Wong, M., Tu, W., Elliott, M. N., et al. (2002). A mental health intervention for schoolchildren exposed to violence: A randomized controlled trial. *Journal of the American Medical Association,* 290(3), 603-611.

Figure 1: Project Fleur-de-lis' Stepped Trauma Pathway
Designed for intermediate and long-term treatment of post-disaster trauma.

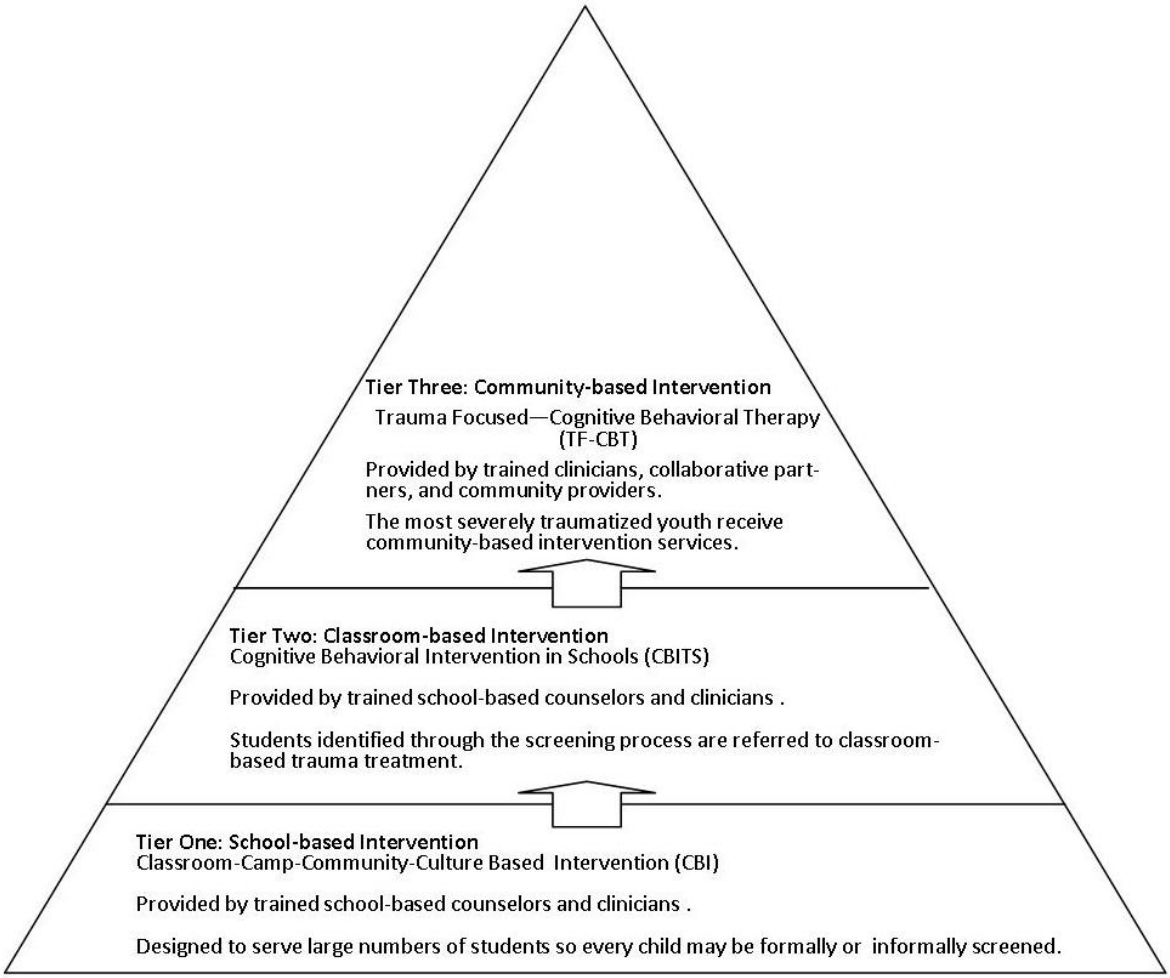

Figure 2: Classroom-Community Consultation Triage Model (C^3)

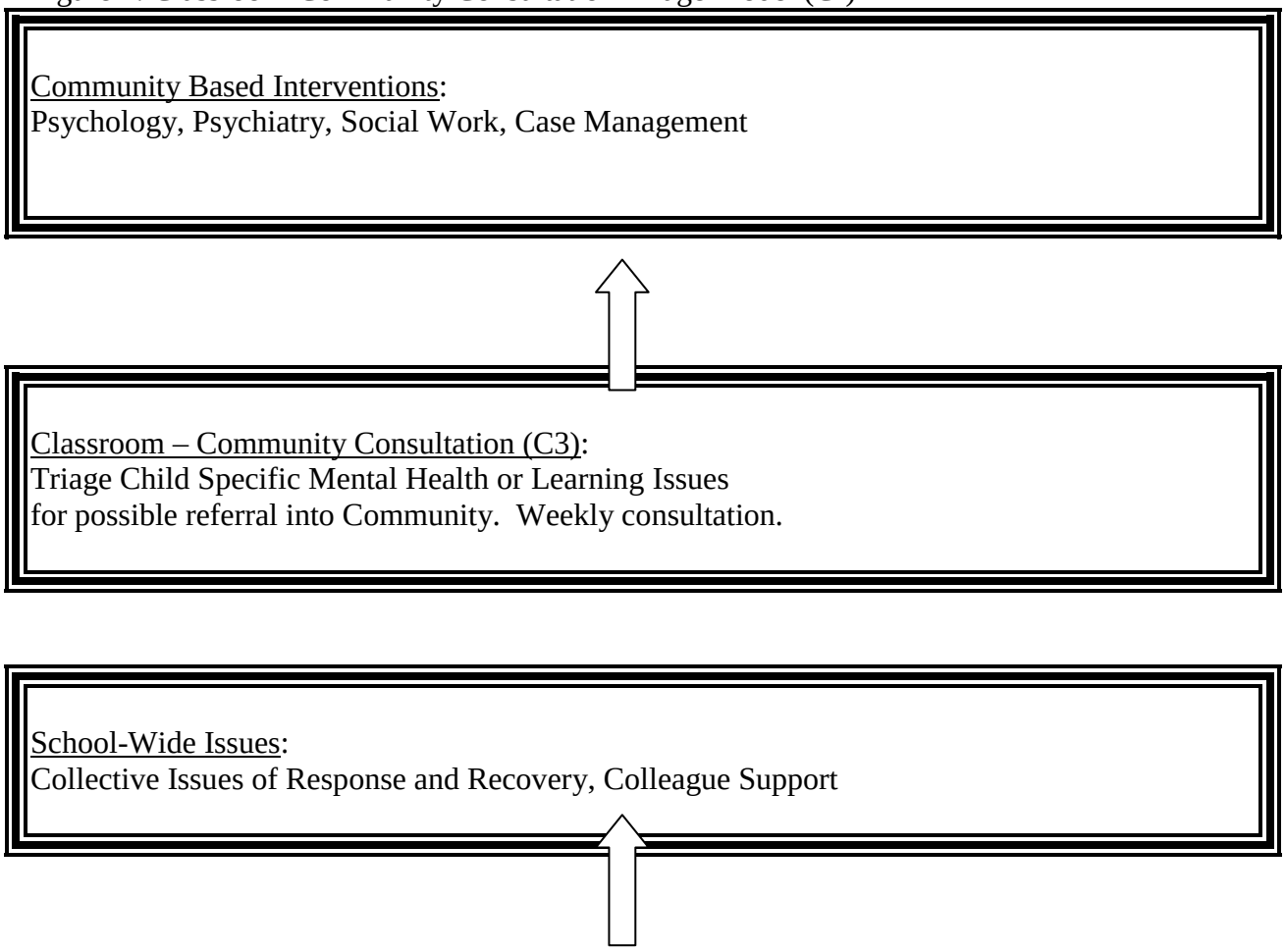

Figure 3: Project Fleur-de-lis (PFDL) Service Summary Table 2006 – 2009 academic years
PFDL Service Summary Table

	2006 – 2007	2007-2008	2008-2009
Number of Schools	45	56	58
Students Receiving CBI ©	5,000*	0†	0†
Students Receiving CBITS	53	0	137
Students Receiving TF-CBT	6**	0***	0***
C^3			
Number of Students Triaged	268	549	543
Total # of Triaged Students Who Sought No-Cost Community Mental Health Services	153	368	400
Total # of counselors trained in CBITS	0	0	192
Number of PFDL Staff (FTEs)	2.5	4.5	7.0

*Estimated number of children as reported by Save the Children
**Students who underwent TF-CBT during 2006 – 2007 academic year were treated within a PFDL research project. Over 40 students in the same year were treated within Mercy Family Center
***Students that were referred for TF-CBT were treated by Mercy Family Center
† CBI © is considered an immediate intervention to be used in the weeks and months after a disaster, therefore it has not been utilized since the 2006-2007 academic year

Figure 4: Current 2009-2010 Project Fleur-de-lis participating schools.

Catholic Schools

Academy of Our Lady
Archbishop Rummel
Ascension of Our Lord
Cathedral Academy
Chapelle High School
Christ the King
De La Salle
Good Shepherd
Holy Name of Jesus
Holy Rosary
St. Benedict
St. Clement of Rome
St. Scholastica
St. Anthony (Gretna)
St. Angela Merici
St. Benilde
St. Charles Borromeo
St. Christopher
St. Cletus
St. Joan of Arc
St. Mary's Dominican High School
St. Mary Magdalen
St. Matthew the Apostle
St. Philip Neri
St. Rita – Harahan
St. Rosalie
Our Lady of Divine Providence
Our Lady of Perpetual Help – Belle Chasse
Our Lady of Perpetual Help – Kenner
Our Lady of Prompt Succor
Ursuline Academy Elementary
Visitation of Our Lady

Charter Schools

Accelerated Academy at Booker T. Washington
Alice Harte Charter School
Algiers Technology Academy
Arthur Ashe
Behrman Charter School
Edna Karr High School
Eisenhower Charter School
Excel Academy High School (Welcome School)

Fischer Charter School
Harriett Tubman
Hope Academy
International School of Louisiana
KIPP Believe
KIPP Central City Academy
Langston Hughes
Lusher Charter School
McDonough 32 Charter School
New Orleans College Prep Charter School
O' Perry Walker
Samuel Green
Sojourner Truth Academy
Success at Schwartz

Public Schools

John James Audubon
G.W. Carver High School

Private Schools

St. George's Episcopal School
St. Paul's Episcopal School